

ACTUARIAL CALCULATIONS IN CONNECTION WITH PERSONAL INJURY CLAIMS

Prepared by Ian M. Karp, F.S.A., F.C.I.A. , March, 2003 for posting to www.karpactuarial.com. The original version of this document was used by Ian Karp in conjunction with his participation in a February 7, 2003 course administered by the Continuing Legal Education Society of B.C. The course was titled "Personal Injury Cases: Winning With Experts".

Available elsewhere on this website is a detailed document which gives an overview of actuarial calculations in connection with personal injury claims, with emphasis on the information required by the actuary from the lawyer. Also available is a similar document relating to fatal accident claims. My comments in the rest of this paper focus on personal injury claims. The above detailed documents are an attempt at providing a comprehensive "information checklist". This brief paper focuses on the nature of the interaction between the lawyer and the actuary, leading up to the preparation of an actuarial report. Obviously, this paper represents only my personal views. Another actuary, or an economist, may have different views. Further, I do not presume to comment on what is proper practice for lawyers. However, lawyers who hold sharply differing views from mine regarding the appropriate "boundaries" between lawyer and actuary probably would be better served by seeking an alternative source of assistance.

Deciding Who To Retain; An Actuary Or An Economist?

Today in B.C., both actuaries and economists carry out future loss calculations in personal injury cases. From the viewpoint of lawyers and judges, actuaries and economists are often viewed interchangeably, and it is commonplace for an economist to be referred to as an actuary, or vice - versa. I think that the ability, experience, and integrity of the particular expert is more important than whether that expert is an actuary or economist. For example, an economist can, by experience and study, become as knowledgeable or more knowledgeable as to certain actuarial concepts than many actuaries. However, economists and actuaries do have strengths and weaknesses relative to each other. Economists have particular strengths in the area of labour market contingencies, and modelling future projected earnings according to Statistics Canada averages, grouped according to educational attainment or potential future occupation. Actuaries have particular strengths in the area of mortality assumptions (e.g. substandard life expectancy, "lost years"), and in calculating losses related to pension plan entitlement. For brevity, I use the term "actuary" in the rest of this paper rather than "actuary or economist".

Giving The Actuary Adequate Time To Do A Proper Job

As with any service, the actuary cannot deliver a quality work product without adequate time to do the work. As explained in the attached documents, the actuary's report builds upon and synthesizes the findings of other experts, using the other necessary information

provided by counsel or obtained by the actuary. Thus the reports of other experts need to be in the actuary's hands at least a few weeks before the actuary's deadline.

Getting The Actuary The Information He/She Needs

Obtaining an information checklist (such as the attached documents) from the actuary you are retaining, and following it as closely as possible, minimizes the amount of work the actuary's office needs to do. Therefore, fees are contained and turnaround time speeded up. However, it may require the lawyer's office to spend some extra time. This can be a problem, particularly for smaller law offices. Thus, while I might prefer that the attached information checklists be followed closely, ultimately it is up to the lawyer.

What Exactly Are The Actuary's Role(s)?

What Are The Boundaries Between The Lawyer's Role And the Actuary's Role?

I think the actuary has two main roles:

1. Assisting the lawyer in ensuring that "all bases have been covered" regarding the quantum aspects of the case.
2. Preparing actuarial reports based on:
 - i. Actuarial assumptions selected by the actuary which are unbiased; i.e. the actuary's best estimate, which is the same from case to case, whether the actuary is retained by plaintiff or defendant.
 - ii. Instructions from the lawyer to the actuary regarding legal or factual issues; these are the ultimate responsibility of the lawyer, but in my view the actuary has a responsibility to ensure that such instructions are within the realm of reasonableness.

I now elaborate further on these points.

Facts And Inferences; Actuarial Assumptions And Non - Actuarial Assumptions

Regarding expert evidence generally, Canada's Chief Justice, Beverley McLachlin wrote as follows in 1989 (speech prepared for March, 1989 Whistler, B.C. meeting of the Canadian Institute of Actuaries):

"Care must be taken to ensure the facts - proven and unproven - are distinguished from inferences. In this exercise, the hypothetical question - an almost forgotten adversarial art - [is] sans pareil. An expert report that lumps facts which the judge and jury may or may not accept indiscriminately with inferences based on those facts, as though all are worthy of the same credence, is likely to be tossed out of court on the ground that it is calculated

to mislead."

"(W)here the facts and inferences are within the realm of common, properly instructed, understanding, there can be no better guide [than that] laid down in the early cases ... distinguish between the fact, which must be proved in the ordinary way by admissible evidence, and inferences from those facts, which may sometimes call for learned, expert opinion."

In the context of an actuarial report, from an actuary's point of view, in Judge McLachlin's terms:

"facts" equal assumptions selected by the lawyer (non - actuarial assumptions).

"inferences" equal assumptions selected by the actuary (actuarial assumptions), together with the relevant calculations and reporting.

Actuarial Report Must Describe Clearly Which Assumptions Are Actuarial, And Which Are Non - Actuarial

I prepare my reports, and cite results of calculations in my reports, which I determine according to generally accepted actuarial principles ("inferences"). However, I always caution readers of my reports to bear in mind that results of calculations also depend on non - actuarial assumptions ("facts"), which I adopt pursuant to the lawyer's instructions. These assumptions are not of a technical actuarial nature, and such results should not be interpreted as my opinion regarding an appropriate court award.

I describe clearly in my reports which assumptions I have selected, and which assumptions have been selected by the lawyer (and adopted by me upon the lawyer's instruction).

Client's Instructions Must Not Encroach On Purely Actuarial Matters, And Must Be Within The Realm Of Reasonableness

First, the lawyer's instructions should be confined to legal or factual issues. For example, in a straightforward case, such assumptions might be as follows:

- had the accident not occurred, the plaintiff would have continued the employment held at time of injury, until retirement at age 65.

- in view of the accident, the plaintiff will have no earnings in the future.

- future expenses ("costs of care") should be projected in line with the March 31, 2003 report prepared by Ms. Costofcareexpert.

Thus, I think it is inappropriate for lawyers to attempt to influence assumptions which are

purely actuarial; e.g. mortality table, net discount rate.

Second, I think that assumptions selected by the client (i.e. non - actuarial assumptions) cannot be grossly unreasonable. Former B.C. Chief Justice McEachern stated the following, in a 1985 speech to the Vancouver Actuaries Club.

"I think it is essential, if the high regard we all have for actuaries is not to be diluted, for expert witnesses to be models of objectivity and reasonableness. I suspect many of you have been asked to express opinions based upon specious assumptions...It is all very well to say that you are only applying your skills objectively to a set of pre-selected assumptions, and you can include all the appropriate disclaimers in your report. But your reputation is at stake whenever you give such an opinion and you may think that if you do not give it then someone else will, so you might as well go ahead. I suggest that you give careful thought to whether you should associate yourself with such a process. Professional independence is an invaluable asset and you should exercise it reasonably and responsibly in defence of your reputation. Taking a hike out of an uncomfortable situation before you are committed is very good for the soul."

Thus, while the lawyer takes ultimate responsibility for the non - actuarial assumptions, I think that the lawyer should consider the actuary's input in arriving at these assumptions.

Draft Reports; Revision Of Reports Submitted By The Actuary

I pride myself on writing clear, thorough reports. Further, I think that the maintenance of my professional independence requires that I have full control over the wording and format of my reports. Therefore:

- i. Once I have finalized with the lawyer the parameters of my reports (scope, nature of non - actuarial assumptions) there is no need for a draft report. I prepare a final report.
- ii. If upon reviewing the report, counsel finds any factual errors, typographical errors, or unclear report language, I am pleased to revise the report to make the necessary corrections/ improvements.
- iii. If upon reviewing the report, counsel wishes to revise his/her instructions, and such revisions are reasonable, I am pleased to prepare a revised report. (e.g. Originally, instruction was that injured plaintiff retained 25% of his/her earning capacity prior to the accident, but counsel wishes to revise the 25% figure to 15%).
- iv. I will not make any revisions other than as described in ii. or iii. above.

Counsel Can Prepare Summary Of "Essentials" Of Report

Sometimes, when I have prepared a lengthy report in a complicated case, I am asked how

my report can best be summarized. In line with the “facts/inferences” idea discussed earlier, one possibility is to simply extract from the report the following:

- the description of the non-actuarial assumptions adopted at the lawyer’s instruction (“facts”).

- the final results of my calculations (final result of “inferences”). In a fatality, such results are usually contained in a single table; in an injury case, they are usually given as part of a covering letter accompanying my reports. Of course, the remaining portions of the report(s) contain the rationale for the inferences.

Of course, I have no objection to counsel preparing a summary of my report in this matter, so long as it is clearly identified as such and the full report is also made available at the same time.

Rebuttal Reports; Special Considerations

As mentioned in the outline, if I am asked (say, by the defence) to critique the report of another actuary or economist (say, prepared for the plaintiff) I will first carefully review the other expert’s report, and discuss my findings with counsel. Often, I will identify both “plus” and “minus” factors in the other side’s report. If so, counsel often does not want a formal rebuttal report from me, and my involvement ends. Counsel, being an advocate, can make fully selective use of the points I identify. If I am asked to prepare a full formal report commenting on the other expert’s report, I start by redoing the other expert’s calculations based on my own actuarial assumptions.

Testifying In Court

Counsel can either:

- i. Simply present me for cross - examination.
- ii. Take me through my reports, to ensure that the judge can follow my reports.

Whenever possible, I will try to answer questions by referring to my report; e.g. I might start my answer with “as I state at p. x of my report...”